

REMARKS

The present Amendment is responsive to the final Office Action dated November 13, 2009.

The final Office Action rejects claims 1-10 under 35 USC §103(a) over US Patent No. 5,437,044 to Hohner, et al. (Hohner) in view of German Patent document DE 3440917 to Frenzel (Frenzel).

In response to the rejection, applicant amends independent claim 1 both formally and to incorporate the subject matter of claim 2, now cancelled, and amends claims 3-10, which depend from claim 1, formally.

Claim 1 as amended recites a memory-programmable control (SPS) for coupling to a data interface (8) of a personal computer (PC) including a user surface (13) and a memory.

The SPS comprises means for operating the inputs and outputs (9, 10) of the SPS including keys (T1 through Tn) for tripping machine functions, wherein the keys (T1 through Tn) are embodied as pushbuttons (T1 through Tn), provided in addition to the user interface (13) of the PC, are each electrically connected directly to one of the SPS inputs (9) at the same time that the personal computer (PC) is coupled to the SPS and are each electrically connected, parallel to the SPS inputs (9), to an internal bus (14) of the PC. One of a plurality of key levels, each with selected meanings, stored in memory in the PC, for the pushbuttons (T1 through Tn) is selectable from the user interface (13) of the PC.

The SPS further comprises a control unit for flag assignment (4) connected directly to the SPS inputs (9) and thus to the external pushbuttons (T1 through Tn) and to the PC via the data interface (8). The control unit for flag assignment (4) receives information about a key allocation of the pushbuttons (T1 through Tn) in a particular key level upon selection and links this information with a pushbutton signal applied to an SPS input (9). Upon selection of any of the keys (T1 through Tn), a respective surface function (5) of the PC, stored in the memory and assigned to both the machine function and to the key's respective key allocation is tripped.

Hohner, as distinguished, discloses an SPS 10 for program control of a machine. SPS 10 includes a microcomputer and storage means (e.g., EPROM) for storing a control program. The microcomputer is accessed by a plug socket 11. An operating unit 12 including a keypad 13 and a display 14 is connected to the SPS 10 by inserting multipole plug 15 into the socket 11. When the SPS 10 is connected to operating unit 12, keypad 13 controls functions of the controlled machine.

If the control program in the SPS is to be altered, enlarged or replaced, plug 15 is removed from socket 11 and a plug 17 inserted. Plug 17 connects the SPS via cable 18 with a programming 19 device, a PC. PC 19 consists of a monitor 21 and screen 20, a computer housing 22 and a keyboard 23. The SPS program is downloaded into memory in the PC, modified and returned to the SPS 10 in its modified state.

The Examiner acknowledges that Hohner does not disclose that keys (T1 through Tn), are electrically connected directly to one of the SPS inputs (9) at the same time that the personal computer (PC) is coupled to the SPS, i.e., that the keys are not electrically connected in parallel to the SPS inputs (9) and to an internal bus (14) of the PC.

The Examiner then asserts that Frenzel's keypad [28] is electrically connected directly to the SPS concurrently and in parallel with PC [12].

Applicant respectfully disagrees. Frenzel suffers the same shortcomings of Hohner, and with all due respect, Frenzel's element [28] is not a digital keypad as asserted in the rejection, but a text memory.

Furthermore, Frenzel's PC [12] is not electrically connected to Frenzel's input/output unit [26] at the same time that Frenzel's keys [29; 30] of input/output unit [26] are connected. Nor are Frenzel's keys [29; 30] shown to be connected in parallel to SPS inputs and a bus of Frenzel's PC [12].

Frenzel discloses that the programming input [35] of separate text memory [28] of its input/output unit [26] **can be temporarily connected** to the PC [12] for the entry of text elements (emphasis added).

Moreover, please note that Hohner at col. 4, lines 58-60, merely describes a step 29 by which key functions of key pad 13 are coordinated while operating unit 12 is disattached to SPS 10, for operation by the key pad keys after the key functions are downloaded, PC 19 is disattached from the SPS 10 and operating unit 12 is again attached to the SPS

Applicant respectfully asserts, therefore, that not only would the skilled

artisan not looked to Frenzel to remedy the shortcomings of Hohner, and that even *assuming arguendo* that Hohner could be modified with the teaching of Frenzel, such modification would not realize a memory-programmable control (SPS), as set forth in amended independent claim 1.

Hence, amended independent claim 1 and claims 3-10 that depend therefrom are non-obvious under 35 USC §103(a) over Hohner in view of Frenzel, and applicant respectfully requests withdrawal of the rejections thereunder.

Accordingly, the application as amended is believed to be in condition for allowance. Action to this end is courteously solicited. However, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application in condition for allowance.

Respectfully submitted,



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